

REMARKS

Claims 87-100 are currently pending in the application. Claims 87, 88, 94, and 98 are independent. Claim 95 is currently amended to remove features already claimed in a base claim. Claims 96-100 are added. Claims 1-86 were previously canceled.

Examiner Interview

Applicants wish to thank the Examiner for the courtesies extended to Applicant's representative during the personal interview which was conducted on January 3, 2008. An Examiner Interview Summary was made of record. During the interview, proposed changes to the claims were discussed in an attempt to overcome the prior art rejections of record. However, after reviewing the proposed changes Applicants have elected not to implement them. Accordingly, reconsideration and allowance of the present application in view of the following remarks are respectfully requested.

Rejection under 35 U.S.C. § 102(b)

The Office Action rejects claims 87-89 and 93-95 as being anticipated by U.S. Patent No. 6,087,757 issued to Honbo et al. (hereinafter "Honbo").

To anticipate a claim under § 102, a single prior art reference must disclose every element of the claim. MPEP § 2131. Honbo does not satisfy this obligation.

In particular, independent claims 87, 88, and 94 recite a combination of elements including a pair of inverter transformers (inverter circuits, in 94) each positioned near opposite ends of a fluorescent tube. Honbo does not disclose this feature; nor is the feature obvious.

The Office Action asserts that Honbo discloses the above-recited feature. Applicants disagree. Honbo does not disclose a position for its piezoelectric transformers. Rather, the block diagrams of figures 2-5 illustrate only that the transformers are electrically connected to a discharge tube. No information is illustrated in the figures or disclosed in the specification to

disclose a particular position of the piezoelectric transformers relative to the discharge tube, much less that a pair piezoelectric transformers are respectively positioned near ends of the discharge tube. Moreover, Honbo provides no rationale for such a position.

The present application recognizes that as the length of high-voltage wires increases, the influence of uncertain elements such as stray capacitance also increases and can become a significant noise-generating factor. In recent years liquid crystal display (LCD) devices are becoming larger and thinner so that fluorescent tubes used in backlight apparatuses for the LCD devices are being made longer and narrower, resulting in greater demand for high voltages. The above-described problem therefore has a significant impact. The inverter transformer/circuit positions provided in independent claims 87, 88, and 94 make it possible to avoid the use of long wires connecting the inverter transformer/circuits to the fluorescent tube. Thus the influence of stray capacitance in the connecting wires is minimized, and noise generation is prevented.

Honbo does not recognize a problem caused by the high voltages required for the upsizing of backlight devices. Consequently, Honbo does not describe that a pair of inverter transformers/circuits is positioned near the ends of a fluorescent tube.

Moreover, positioning the transformers near opposite ends of a fluorescent tube results in an increase in the number of components and cost. These sacrifices must be acknowledged and accepted in order to solve the aforementioned serious problems. Therefore, as described above, the positioning of the pair of inverter transformers/circuits near the ends of a fluorescent tube cannot be obvious.

Accordingly, Applicants respectfully submit that the combinations of elements as set forth in independent claims 87, 88, and 94 is not disclosed or made obvious by the prior art of record, including Honbo. Claims 89, 93 and 95 depend from independent claims 87, 88, or 94 and are therefore believed to be allowable for at least the reasons given regarding these base claims. Withdrawal of the rejections and reconsideration of the claims are requested.

Allowable Subject Matter

The Office Action indicates that claims 90-92 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank Examiner for this early indication of allowable subject matter. However, in view of the above remarks, Applicants believe claims 90-92 to be in condition for allowance for at least the same reasons as the base claims from which they depend.

New claims 96-100

Claims 96-100 have been added for the Examiner's consideration. Applicants submit that claims 96-97 depend, either directly or indirectly, from independent claim 94, and are therefore allowable based on their dependence from claim 94 which is believed to be allowable.

In addition, claims 98-100 recite further limitations which are not disclosed or made obvious by the applied prior art references. In particular, the same configuration of inverter circuits positioned near ends of a fluorescent tube discussed above exists in the fluorescent tube driving apparatus of independent claim 98. Subsequently, claim 98 includes a pair of inverter circuits, which comprises a pair of inverter transformers is positioned near the ends of the fluorescent tube, and the aforementioned fluorescent tube is driven by the pair of inverter circuits. Thus, use of all long wires for connecting inverter transformers with fluorescent tubes is avoided, and the aforementioned problems caused by use of long high-voltage wires can be prevented.

Conclusion

In view of the above remarks, it is believed that claims 87-100 are allowable.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact James C. Larsen Reg. No. 58,565 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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